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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,173	10/12/2001	Donald Remboski	29248/AP01948	2896

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EXAMINER

TSAI, CAROL S W

ART UNIT	PAPER NUMBER
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2857

DATE MAILED: 06/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/977,173

Applicant(s)

REMBOSKI ET AL.

Examiner

Carol S Tsai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/12/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- ☐ Interview Summary (PTO-413) Paper No(s). _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-11, 13-18, 20-22, 29, and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by U. S. Patent No. 5,469,079 to Bouchard et al.

With respect to claims 1, 8, and 9, Bouchard et al. disclose a method of assessing vehicle operator performance, the method comprising the steps of: receiving vehicle operating data from the vehicle relating to the vehicle operating condition; monitoring an interior portion of the vehicle and receiving operator activity data from the interior portion of the vehicle relating to activities of the operator within the interior portion; receiving vehicle environment data from the environment external to the vehicle; monitoring the vehicle operator and receiving operator condition data relating to a condition of the vehicle operator (see col. 8, lines 7-17 and col. 9, line 21 to col. 10, line 53); and determining an operator assessment value, wherein the operator assessment value is based upon the vehicle operating data, the operator activity data, the environment data and the operator condition data and is indicative of vehicle operator performance (see Abstract, lines 1-14; col. 10, lines 18-53; and col. 31, line 39 to col. 32, line 11).

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As to claims 2-6, Bouchard et al. also disclose receiving data relating to at least one of: vehicle speed and vehicle (see col. 28, lines 44-52 and col. 30, lines 29-58).

As to claim 7, Bouchard et al. also disclose receiving data relating to an operating parameter of the vehicle (see col. 29, lines 19-25).

As to claims 10 and 13, Bouchard et al. also disclose telematics controls/communication controls (see col. 9, lines 6-21).

As to claim 11, Bouchard et al. also disclose occupant comfort controls (see col. 9, lines 39-50).

As to claims 14-17, Bouchard et al. do not expressly disclose a physical condition of the operator comprising fatigue/intoxication.

It is, however, considered inherent that Bouchard et al. determine a physical condition of the operator comprising fatigue/intoxication (see col. 31, lines 11-23), because such determination is known to be a necessary step in order to make accident reconstruction more reliable and less expensive.

As to claim 18, Bouchard et al. also disclose monitoring a distraction condition of the operator (see col. 31, lines 11-15).

As to claim 20, Bouchard et al. also disclose receiving road condition data (see col. 30, lines 44-46).

As to claim 21, Bouchard et al. also disclose receiving road lane following data (see col. 30, lines 46-52).

As to claim 22, Bouchard et al. also disclose receiving headway data (see col. 28, lines 44-52).

As to claim 29, Bouchard et al. also disclose determining the existence of a problem condition associated with the performance of the operator (see col. 31, lines 11-23).

As to claim 30, Bouchard et al. also disclose the operator assessment value being determined on a periodic basic vehicle operation (see col. 9, lines 62-65).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bouchard et al. in view of U. S. Patent No. 6,370,454 to Moore.

As noted above, Bouchard et al. disclose the claimed invention, except for infotainment controls.

Moore teaches infotainment controls (see col. 4, lines 64-66).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Bouchard et al.'s method to include infotainment controls, as taught by Moore, in order that information located in various remote servers relating to the performance and service of the vehicle may be downloaded across the network and easily used in servicing and maintaining the vehicle (see Moore Abstract, lines 8-11).

5. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bouchard et al. in view of U. S. Publication 2002/0103622 to Burge.

As noted above, Bouchard et al. disclose the claimed invention, except for monitoring vehicle passengers.

Burge teaches monitoring vehicle passengers (passengers 1180 shown on Fig. 15).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Bouchard et al.'s method to include monitoring vehicle passengers, as taught by Burge, in order that information of passengers can be provided for further analysis.

6. Claim 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bouchard et al. in view of U. S. Publication of 2003/0014176 to Levine.

As noted above, with respect to claims 23 and 24, Bouchard et al. disclose the claimed invention, except for receiving traffic control data.

Levine teaches receiving traffic control data (see paragraphs 0042 and 0043).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Bouchard et al.'s method to include receiving traffic control data, as taught by Levine, in order to relieve or minimize traffic congestion and slowdown (see Levine, Paragraph 0043, lines 13-14).

7. Claims 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bouchard et al. in view of U. S. Patent No. 5,390,117 to Graf et al.

As noted above, with respect to claims 25-28, Bouchard et al. disclose the claimed invention, except for inferring performance of the operator from the vehicle operating data, the operator activity data, the environment data and the operator condition data.

Graf et al. teach inferring performance of the operator from the vehicle operating data, the operator activity data, the environment data and the operator condition data (see col. 5, line 16 to col. 7, line 63).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Bouchard et al.'s method to include inferring performance of the operator from the vehicle operating data, the operator activity data, the environment data and the operator condition data, as taught by Graf et al., in order to evaluate various signals characterizing driving states of the motor vehicle (see Graf et al. col. 1, lines 63-64).

8. Claims 31-35, 37, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 5,469,079 to Bouchard et al. in view of U. S. Patent No. 6,272,411 to Corrado et al.

Bouchard et al. disclose an apparatus for assessing vehicle operator performance, the apparatus comprising: a vehicle condition sensor, a vehicle exterior sensor, an operator condition sensor and an operator activity sensor respectively providing to the sensor fusion module vehicle condition data, vehicle environment data, operator condition data and operator activity data (see Abstract, lines 1-14; col. 8, lines 7-17; col. 9, line 21 to col. 10, line 53; and col. 31, line 39 to col. 32, line 11).

Bouchard et al. do not disclose a sensor fusion module operable to provide a master condition list based on the data received by the sensor fusion module and a response selector

coupled to the sensor fusion module, the response selector being operable to determine a current operating condition based upon the master condition list and to assess an operator action in response to the current operating condition to provide an operator performance assessment value based upon the master condition list and the operator action.

Corrado et al. teach a sensor fusion module operable to provide a master condition list based on the data received by the sensor fusion module and a response selector coupled to the sensor fusion module, the response selector being operable to determine a current operating condition based upon the master condition list and to assess an operator action in response to the current operating condition to provide an operator performance assessment value based upon the master condition list and the operator action (see col. 7, line 7 to col. 8, line 52).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Bouchard et al.'s method to include a sensor fusion module operable to provide a master condition list based on the data received by the sensor fusion module and a response selector coupled to the sensor fusion module, the response selector being operable to determine a current operating condition based upon the master condition list and to assess an operator action in response to the current operating condition to provide an operator performance assessment value based upon the master condition list and the operator action, as taught by , in order that signals provided by different sensors which sense different physical parameters and correlate them to increase the reliability of the individual sensing characteristics of the individual sensors (see Corrado et al. col. 4, lines 21-24).

As to claim 32, Bouchard et al. also disclose the vehicle condition data comprising at least one of: vehicle speed, vehicle acceleration, throttle application, brake application, steering

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wheel input, throttle position, rate of change of throttle position, additional available throttle input, throttle applicator pressure, brake position, rate of change of brake position, additional available brake input, brake applicator pressure, steering wheel position, rate of change of the steering wheel position, operator pressure applied to the steering wheel and additional available steering input (see col. 9, lines 21-50).

As to claim 33, Bouchard et al. also disclose the operator activity data comprising usage data relating to at least one of driving controls, telematics controls, occupant comfort controls, infotainment controls and communication controls (see col. 9, lines 6-50).

As to claim 34, Bouchard et al. do not expressly disclose the operator condition data comprising data relating to at least one of fatigue, intoxication and distraction

It is, however, considered inherent that Bouchard et al. determine the operator condition data comprising data relating to at least one of fatigue, intoxication and distraction (see col. 31, lines 11-23), because such determination is known to be a necessary step in order to make accident reconstruction more reliable and less expensive.

As to claim 35, Bouchard et al. also disclose the vehicle environment data comprising data relating to at least one of road condition, lane following, headway, traffic control and traffic condition (see col. 28, lines 44-52 and col. 30, lines 44-52).

As to claim 37, Bouchard et al. also disclose the vehicle exterior sensor comprising at least one of radar, laser, video, and sonar (see col. 8, lines 11-17).

As to claim 38, Bouchard et al. disclose the operator activity sensor comprising video (see col. 8, lines 31-34).

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9. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bouchard et al. in view of Corrado et al. as applied to claim 31 above, and further in view of U. S. Patent No. 5,390,117 to Graf et al.

As noted above, Bouchard et al. in combination with Corrado et al. teach all the features of the claimed invention, but do not disclose the operator performance assessment value comprising an inference value.

Graf et al. teach the operator performance assessment value comprising an inference value (inference system 29 shown on Fig. 2).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Bouchard et al. in combination Corrado et al.'s method to include the operator performance assessment value comprising an inference value, as taught by Graf et al., in order to make possible a decision in which a multiplicity of data being taken into consideration.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Turnbull et al. disclose a vehicle communication and control system being provided that may be more readily installed in a vehicle and that utilizes minimal additional wiring.

Bauerle et al. disclose a vehicle control system method and apparatus including a mobile application service provider communicating over a wireless communication network, a mobile

station communicating with the mobile application service provider over the wireless communications network, and a vehicle controller communicating with the mobile station via an automotive communications network, and where the mobile application service provider accesses vehicle data and transfers the vehicle data to the mobile application service provider to be utilized by the mobile application service provider or another information provider.

Dickson et al. disclose an automatic vision guidance system for an agricultural vehicle.

Gunderson et al. disclose a collision avoidance system including a control module, a first transmitting device connected to the control module, wherein the first transmitting device transmits a signal, a first receiving device connected to the control module, wherein the first receiving device receives a return of the signal transmitted from the first transmitting device and transmits a first return signal representative of the return to the control device, a second transmitting device connected to the control module, wherein the second transmitting device transmits a signal, and a second receiving device connected to the control module device, wherein the second receiving device receives a return of the signal transmitted from the second transmitting device and transmits a second return signal representative of the return to the control device, wherein the control module includes measurement circuitry used to measure the first and second return signals and display means for displaying a transverse location of an object as a function of said first and second return signals.

Ebner et al. disclose an on-board computer for a motor vehicle being equipped with a microprocessor which acquires input signals from analog or digital generators and derives display values or display data from them.

Ousborne discloses a vehicle driver performance monitoring system.

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Contact Information

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carol S. Tsai whose telephone number is (703) 305-0851. The examiner can normally be reached on Monday-Friday from 7:30 AM to 4:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (703) 308-1677. The fax number for TC 2800 is (703) 308-7382. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2800 receptionist whose telephone number is (703) 308-1782.

In order to reduce pendency and avoid potential delays, Group 2800 is encouraging FAXing of responses to Office actions directly into the Group at (703) 308-7382. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the examiner and art unit at the top of your cover sheet. Papers submitted via FAX into Group 2800 will be promptly forwarded to the examiner.

Carol S. Tsai

06/01/03

